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DATE MAILED: 12/31/2002

APPLICATION NO.	FILING DATE FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/769,170	01/25/2001	Jack Oon Chu	YOR920000692US1	5389
7:	590 12/31/2002			
Robert M. Tre		EXAMINER WOJCIECHOWICZ, EDWARD JOSEPH		
Intellectual Pro IBM Corporation	perty Law Dept. on			
P.O. Box 218 Yorktown Heights, NY 10598			ART UNIT	PAPER NUMBER
	, 		2815	

Please find below and/or attached an Office communication concerning this application or proceeding.

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Application No. 09/769,170

Applicant(s)

Chu et al

Office Action Summary

Examiner

Edward Wojciechowicz

Art Unit **2815**

A SHORTENDE STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE3MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. **Extractions of time may be availabile under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed offer SIX (6) MONTH(S) from the **Extraction of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed offer SIX (6) MONTH(S) from the **If NO period for reply is specified above, the maximum statutoray period will apply and will expire SIX (6) MONTH(S) from the maining date of the considered timely. **If NO period for reply is specified above, the maximum statutoray period will apply and will expire SIX (6) MONTH(S) from the maining date of the constitution. **If NO period for reply is specified above, the maximum statutoray period will apply and will expire SIX (6) MONTH(S) from the maining date of the constitution, and the specified and period will apply and will expire SIX (6) MONTH(S) from the maining date of the communication, even if timely filed, may reduce any search greater than the maining date of the communication, even if timely filed, may reduce any search greater and search greater greater and search greater		The MAI	ILING DATE of this communication appears o	n the	cover she	et with	the correspondence address	
THE MALING DATE OF THIS COMMUNICATION. - Extractions of them may be available used the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed efter SIX (6) MONTHS from the making date of this communication. - If NO period for reply appedited above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will exply and will expire SIX (6) MONTHS from the making date of this communication. - If NO period for reply is specified above, the maximum statutory period will exply and will expire SIX (6) MONTHS from the making date of this communication. - If NO period for reply is specified above, the maximum statutory period will exply and variety (30) days will be considered in the communication. - Any next received by the Office later than these mentions after the making date of the communication, even if travely filed, may reduce any search grant than displaced. - Any next replication is filed on Oct 11, 2002 - 2a		• •						
making date of this communication. If the period for reply appelled above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. If No period for reply is specified above, the maximum struturory period will apply and will aspise SIX (B) MONTHS from the mining date of this communication. Failurs to reply within the set or acterized period for reply will, by statute, cause the application to become ABANDONED (38 U.S.C. 133). Any reply received by the Office later than these mentits after the making date of this communication, even if streetly filled, may reduce any search period time explainment. Status								
if the priorid for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. If NO pariof for reply is specified above, the maximum statutory ported will appear and will spits (18) (MINTRS from the mailing date of this communication. Failus to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office letter than there mortula after the mailing date of this communication, even if timely filed, may reduce any earned patient term adjustment. See 37 CFR 1.704(b). Status 1) □ Responsive to communication(s) filed on Oct 11, 2002 2a) □ This action is FINAL. 2b) □ This action is non-final. 3) □ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213. Disposition of Claims 4) □ Claim(s) 1-40				o event	, however, m	ay a reply b	e timely filed after SIX (6) MONTHS from the	
1)	- If the - If NO - Failure - Any re	period for reply s period for reply is to reply within t aply received by t	pecified above is less than thirty (30) days, a reply within the s specified above, the maximum statutory period will apply ar the set or extended period for reply will, by statute, cause the the Office later than three months after the mailing date of th	nd will e applice	xpire SIX (6) ition to becon	MONTHS fr ne ABANDO	om the mailing date of this communication. INED (35 U.S.C. § 133).	
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final. 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213. Disposition of Claims 4i) ☒ Claim(s) 1-40	Status							
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All Claim(s) 1-40 is/are pending in the application. is/are withdrawn from consideration. is/are withdrawn from consideration. is/are withdrawn from consideration. is/are allowed. is/are allowed. is/are rejected. is/are rejected. is/are rejected. is/are objected to. is/are objected to. is/are objected to. is/are objected to.	3) 🗆							
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claim(s)	5) 🗆	Claim(s) _					is/are allowed.	
Application Papers 9	6) 💢	Claim(s) 1-	-30				is/are rejected.	
Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on	7) 🗆	Claim(s) _					is/are objected to.	
Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on	8) 🗆	Claims			are	subject	to restriction and/or election requirement.	
10) ☐ The drawing(s) filed on is/are a) ☐ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). 11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved by the Examiner. If approved, corrected drawings are required in reply to this Office action. 12) ☐ The oath or declaration is objected to by the Examiner. Priority under 35 U.S.C. §§ 119 and 120 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☐ All b) ☐ Some* c) ☐ None of: 1. ☐ Certified copies of the priority documents have been received. 2. ☐ Certified copies of the priority documents have been received in Application No 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). *See the attached detailed Office action for a list of the certified copies not received.	Applica							
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			application from the International Burea	au (PC	T Rule 1	7.2(a)).	-	
14}∐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).	*S	ee the attac	ched detailed Office action for a list of the	certi	fied copi	es not re	eceived.	
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a) U The translation of the foreign language provisional application has been received.	_							
15) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.	15}∟	Acknowle	dgement is made of a claim for domestic	priori	ty under :	35 U.S.(C. §§ 120 and/or 121.	
Attachment(s) 1) V Notice of Perference Cited (PTO 992) 4) Uptacing Summary (PTO 413) Pener Note)	_		on Cited (PTO 992)	4 . □	Intension C	omen: (DTO	4.413) Panas Na/al	
1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)				,				
3) Notice of Diarraperson's Patent Drawing review (PTO-946) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4 6) Other:	_	· · · · · · · · · · · · · · · · · · ·		_		minai raidill	. reprime to 1 (1 1 0° 1 32)	

Application/Control Number: 09/769,170

Art Unit: 2503

Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakaguchi et al as applied to claim above, and further in view of Zavracky et al. The basic inventive concept and structure is taught by Sakaguchi where a semiconductor is formed by first forming a porous release layer on a substrate, forming a nonporous semiconductor layer on the porous release layer, bonding the semiconductor layer to a temporary auxiliary substrate, and then detaching the semiconductor layer from the first substrate by breaking apart the porous release layer.

Sakaguchi also teaches the inventive concept of injecting a liquid such as water into the porous layer, and then subjecting it to a freeze cycle, so as to cleave the porous layer.

While Sakaguchi does not explicitly discuss the formation of active semiconductor devices during the substrate formation, such an approach is also well known in the art, as shown by Zavracky who uses a similar approach to substrate formation, and forms devices before the final

Page 3

Application/Control Number: 09/769,170

Art Unit: 2503

substrate is detached. These references also teach the use of adhesive layers, and typically employ

the same materials claimed by applicants.

These references are properly combinable, in that each seeks to form a semiconductor

substrate using a sacrificial release layer, as claimed. One skilled in the art would also be

motivated to combine these references in order to gain the processing efficiencies by forming the

active device, as in Zavracky, during the overall substrate formation taught by Sakaguchi.

Any inquiry concerning this communication or earlier communications from the examiner 3.

should be directed to Edward Wojciechowicz, whose telephone number is (703) 308-4898, or to

SPE Eddie Lee whose number is 703-308-1690.

GROUP 2500

Edward Wojciechowicz:ew

December 30, 2002